

C. Amendment to the Claims

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1-9. (Cancelled)

10. (Currently Amended) A three-dimensional structure forming method that forms a three-dimensional structure made of a photosensitive material on a substrate, said method comprising the steps of:

forming a first layer by applying onto the substrate the photosensitive material with a first film thickness within a preset maximum film thickness; and

forming a second layer by applying onto the first layer photosensitive material with the first film thickness applied onto the substrate; the photosensitive material with a second film thickness within the maximum film thickness before exposing the first layer.

11. (Currently Amended) A three-dimensional structure forming method according to claim 10, further comprising the steps of:

exposing, with light having an energy distribution corresponding to the desired three-dimensional structure, the first and second layers ~~photosensitive material applied by said applying step; and~~

developing the ~~photosensitive material that has been exposed~~ first and second layers.

12. (Currently Amended) A three-dimensional structure forming method according to claim 11, further comprising the step of etching the substrate using the ~~photosensitive material that has been exposed~~ first and second layers.

13. (Original) A three-dimensional structure forming method according to claim 10, wherein the substrate is an optical element.

14. (Original) A three-dimensional structure forming method according to claim 10, wherein the substrate is a mold.

15. (Original) A three-dimensional structure forming method according to claim 10, wherein the photosensitive material is made of novolac resin.

16. (Currently Amended) A three-dimensional structure forming method according to claim 10, wherein ~~said applying step applies in the forming steps~~ the photosensitive material is applied through a solvent, and the solvent is propylene glycol monomethyl ether acetate.

17. (Original) A three-dimensional structure forming method according to claim 10, wherein the maximum film thickness is equal to or smaller than 12 μm .

18-28. (Cancelled)

29. (Currently Amended) An optical element manufactured by a three-dimensional structure forming method that forms a three-dimensional structure made of a photosensitive material on a substrate, said method comprising the steps of forming a first layer by applying onto the substrate the photosensitive material with a first film thickness within a preset maximum film thickness, and forming a second layer by applying onto the first layer photosensitive material with the first film thickness applied onto the substrate; the photosensitive material with a second film thickness within the maximum film thickness before exposing the first layer.

30. (Original) An optical element according to claim 29, wherein the optical element is a lens array that forms plural lenses on an array.

31. (Original) An optical element according to claim 30, wherein the plural lenses have a shape of a hexagon, an arc, or a rectangle.

32. (Original) An optical element according to claim 31, wherein the shape has a width between 12 μm and 2 mm.

33-37. (Cancelled)

38. (Currently Amended) A biochip manufactured by a three-dimensional structure forming method that forms a three-dimensional structure made of a

photosensitive material on a substrate, said method comprising the steps of forming a first layer by applying onto the substrate the photosensitive material with a first film thickness within a preset maximum film thickness; and forming a second layer by applying onto the photosensitive material with the first film thickness applied onto the substrate, first layer the photosensitive material with a second film thickness within the maximum film thickness before exposing the first layer.

39-43. (Cancelled)

44. (Currently Amended) An exposure apparatus comprising an optical system and ~~exposes an object through the optical system, wherein said optical system,~~ which includes the optical element manufactured by a three-dimensional structure forming method that forms a three-dimensional structure made of a photosensitive material on a substrate, said method comprising the steps of forming a first layer by applying onto the substrate the photosensitive material with a first film thickness within a preset maximum film thickness, and forming a second layer by applying onto the photosensitive material with the first film thickness applied onto the substrate, first layer the photosensitive material with a second film thickness within the maximum film thickness before exposing the first layer.

45-46. (Cancelled)

47. (Currently Amended) A device fabrication method comprising the steps of:

exposing an object using ~~[[the]]~~ an exposure apparatus; and

developing the object that has been exposed,

wherein said exposure apparatus includes an optical system and exposes an object through the optical system, and

wherein said optical system includes the optical element manufactured by a three-dimensional structure forming method that forms a three-dimensional structure made of a photosensitive material on a substrate, said method comprising the steps of forming a first layer by applying onto the substrate the photosensitive material with a first film thickness within a preset maximum film thickness, and forming a second layer by applying onto the ~~photosensitive material with the first film thickness applied onto the substrate;~~ first layer the photosensitive material with a second film thickness within the maximum film thickness before exposing the first layer.

48. (Cancelled)

49. (New) A three-dimensional structure forming method according to claim 10, wherein the step of forming the first layer comprises a step of baking the first layer, and the step of forming the second layer comprises a step of baking the second layer.